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(71) Applicant: **MATSUSHITA ELECTRIC IND CO LTD**

(72) Inventor: **ISHIDA KAORU**  
**KOSUGI HIROAKI**  
**SASAKI FUJIO**  
**MORINAGA YOICHI**

(54) **TIME DIVISION MULTIPLEX FDD RADIO EQUIPMENT AND TIME DIVISION MULTIPLEX FDD/TDD DUAL MODE RADIO EQUIPMENT**

transmission frequency signal different from a reception frequency signal.

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(57) Abstract:

**PURPOSE:** To simplify the circuit configuration by decreasing number of oscillators in the time division multiplex FDD radio equipment and the time division multiplex FDD/TDD dual mode radio equipment.

**CONSTITUTION:** A converter 6 mixes a reception signal with a 1st local oscillation frequency signal in the case of reception to convert the reception signal into a 1st intermediate frequency signal, it is amplified by a 1st intermediate frequency amplifier 10, a converter 11 mixes an output of a 2nd local oscillator 12 with a signal multiplied by a multiple of (n) at an n-multiplier 14 to generate a 2nd intermediate frequency signal, and it is demodulated by a demodulator 16. On the other hand, an output of the 2nd local oscillator 12 is multiplied by a multiple of (m) at an m-multiplier 18, a modulator 19 modulates digitally the result, it is amplified by a transmission intermediate frequency amplifier 20 in the case of transmission and a converter 22 is used to mix the amplified signal with an output of the 1st local oscillator 8 to convert the signal into a

